Countryside Executive Golf Course
2506 Countryside Boulevard
Clearwater, Florida
HSA Project Number 601-5982-00
October 19, 2006

HSA
ENGINEERS & SCIENTISTS
A member of the CRA Family of Companies

October 19, 2006

Florida Department of Environmental Protection
Southwest District
13051 North Telecom Parkway
Temple Terrace, Florida 33637-0926

Attention: *Mr. Robert Sellers, CHMM*
Environmental Specialist II

Subject: **Countryside Executive Golf Course**
2506 Countryside Blvd.
Clearwater, Florida
HSA Project Number 601-5982-00

Dear Mr. Sellers:

HSA Engineers & Scientists (HSA), on behalf of Beazer Homes, appreciated the opportunity to have met with you and Ms. Nell Tyner on 13 October, 2006. As you will recall, this meeting was scheduled to further clarify our intentions as presented in our early October response to the Florida Department of Environmental Protection (FDEP) 14 September, 2006, correspondence providing comments to the 10 July, 2006, *Site Assessment Report Addendum,* prepared by HSA, for the above-referenced site. We found your comments and clarifications regarding the acceptability of our approach most helpful, and it remains our client's desire to comply with your requests in an effort to expedite your review, ultimately resulting in the Department's written approval of an acceptable remedial approach for the site by 15 December 2006.

For ease of review, we are re-presenting our proposed scope of activities as submitted earlier, along with modifications to that scope, which reflect our understanding of the Department's comments and request for additional information, as offered during our meeting last week. While we are not anticipating a formal Department response to this correspondence, we would greatly appreciate early communication regarding any element of the plan that is inconsistent with the Department's needs. As discussed, it remains our intention to immediately proceed with the proposed scope of activities detailed below, and any points of clarification would obviously benefit us earlier, rather than later.

GROUNDWATER

Comment 1: *The Report states that the high concentrations of arsenic at MW-2 will attenuate naturally over time. The fluctuations in arsenic concentrations would appear to indicate that natural attenuation is not occurring at this location. Arsenic concentrations increased from 37.3 µg/L to 79.8 µg/L between May 30, 2006 and June 13, 2006.*

Response: Monitoring well MW-2 was initially sampled in August 2005 and was re-sampled in November 2005, May 2006, and June 2006. The arsenic results were reported at concentrations of 119 µg/L, 130 µg/L, 37.3 µg/L, and 79.8 µg/L, respectively. Although the most recent results collected in June 2006 indicate an increase from the previous sampling performed in May 2006, the most recent result remains well below historical levels of 119 µg/L and 130 µg/L, as reported in 2005. Based upon the overall decrease in groundwater concentrations observed during nearly one year of monitoring, it appears that periodic increases and decreases in concentrations occur; however, the general trend in concentrations indicates an overall decrease consistent with natural attenuation.

As discussed previously, monitoring wells TW-14 and TW-15 were installed to the northeast and southeast, respectively, of monitoring well MW-2 to determine whether documented arsenic impacts above the GCTL were migrating in the southeast direction toward the property line. The results of groundwater sampling at these wells in June 2006, indicated below detectable levels for arsenic.

In order to further evaluate groundwater quality in the vicinity of monitoring well MW-2, HSA proposes to install one additional groundwater monitoring well (TW-17) to the west of MW-2 as depicted in the attached **Figures 1A and 1B**. The monitoring well will be installed to a total depth of approximately 12 feet below land surface (ft bls) and will be screened from 2 to 12 ft bls. Following installation, TW-17, along with monitoring wells MW-2, TW-14, TW-15, and TW-16 will be sampled and subjected to fixed laboratory analysis for the presence of arsenic.

As was presented during our most recent meeting, HSA has surveyed (to a relative top-of-casing elevation) all available monitoring wells located throughout the subject site, and has determined that shallow groundwater flow is largely influenced by the series of stormwater detention ponds that exist on-site. Groundwater elevation data is included as **Table 1**. A groundwater elevation plan

depicting the inferred direction of groundwater flow is included as **Figure 2**. While there remains a predominant southeast direction to regional groundwater flow, locally, the site maintains a significant internal flow component. During the re-sampling of site wells, a second measurement of water table elevation data will be collected to confirm our conclusions as previously offered.

In addition to the groundwater sampling discussed above, surface water sampling of the water quality within the existing stormwater detention ponds that are intended to remain as part of the proposed planned development, will be analyzed for the presence of arsenic and pesticides/herbicides in accordance with the EPA Methods described later in this document.

APPROPRIATE SOIL SAMPLING WITHIN THE PROPERTY

Comment 1: ***Soil isoconcentration maps of arsenic by depth are needed to indicate where the site has been delineated.***

Response: As has been previously discussed, the use of isoconcentration maps for delineation purposes is of limited value at the subject site because of the size of the subject site and the widespread application of arsenic-containing pesticides and/or herbicides to on-site soils. Furthermore, variations in arsenic concentrations are anticipated because of the expected varying capacity of soil to sorb arsenic.

In lieu of soil isoconcentration maps, site plans depicting arsenic concentrations at varying depths across the site were prepared. In accordance with requirements included under Chapter 62-780, Florida Administrative Code (FAC), soil arsenic impacts were evaluated for depths ranging from land surface to 6-inches bls (**Figure 3**), 6-inches to 2 feet bls (**Figure 4**), 2 to 4 ft bls (**Figure 5**), and 4 to 6 ft bls (**Figure 6**). The depth to groundwater across the site is approximately 4 to 6 ft bls.

As expected, the concentrations of arsenic in soil decrease significantly with depth. Land surface to 6-inch bls samples revealed concentrations that varied from below detectable levels to 20.9 milligrams per kilogram (mg/kg) for areas outside of the maintenance facility. Within the 6-inch to 2 ft bls samples, the concentrations ranged from below detectable levels to 6.26 mg/kg. For the 2 to 4 ft bls samples, the results range from below detectable levels to 5.23 mg/kg at all

locations with the exception of SS-7. At SS-7, the exhibited concentration of arsenic was 12.7 mg/kg.

Because the shallow samples at this location resulted in concentrations of below detectable levels and 1.11 mg/kg, the 2 to 4 ft bls result appears to be anomalous. In summary, 9 of the 10 samples gathered from land surface to 6-inches bls exceed the residential SCTL, 2 of the 10 samples gathered from 6 inches bls to 2 ft bls exceed the residential SCTL, and 3 of the 10 samples gathered from 2 to 4 ft bls exceed the residential SCTL. As is presented later in this document, an additional soil sampling protocol is proposed to assist with site-wide assessment of soil quality both horizontally and vertically.

Comment 2: ***Soil samples at depths greater than 6 inches are needed to rule out a persistent source area for the arsenic at the MW-2 location. The report stated that this area might have been used as a temporary maintenance area. Soil samples from this area should also be analyzed for arsenic, pesticides, and herbicides using the Synthetic Precipitation Leaching Procedure (Method 1312). Samples that did not exceed the SCTL at the 0-2-foot interval may exceed the residential SCTL in the upper 6 inches.***

Response: Four soil samples were gathered from the vicinity of monitoring well MW-2 in May 2006. The soil samples were gathered from land surface to 6-inches bls. The results indicated arsenic concentrations ranging from 3.56 to 6.63 mg/kg. In order to further evaluate the potential presence of arsenic, pesticides, and herbicides in the vicinity of monitoring well MW-2, additional soil sampling is proposed. In addition to the site-wide soil sampling effort discussed later in this document, five (5) additional soil sample locations are specifically proposed in the vicinity of monitoring well MW-2 (**Figure 1B**). Soil samples will be gathered from land surface to 6-inches bls, 6-inches bls to 2 ft bls, and 2 to 4 ft bls at each location. All of the soil samples will be analyzed for the presence of arsenic. Furthermore, the shallow soil samples will be analyzed for the presence of pesticides by EPA Method 8081 and herbicides by EPA Method 8151. If concentrations of pesticides and/or herbicides are detected at levels above their respective SCTLs, then the corresponding samples from the deeper intervals will also be analyzed. In lieu of SPLP analysis, herbicide and pesticide concentrations will be compared to default leachability-based SCTLs.

Comment 3: ***Chapter 62-780, FAC requires that for surface releases, soil samples be collected from a depth of 0-6". Only the samples from the 2005 soil-sampling***

event were collected from this depth. This site does not appear to be delineated with depth.

Response: As discussed previously, the shallow soil arsenic impacts that exist throughout the subject site appear to be the result of routine pesticide/herbicide application over a period of many years. Based on the nature of the arsenic impacts (applied as part of routine application) and consistent with our recent meeting, HSA proposes a soil sampling effort that consists of quantifying arsenic impacts at the property line consistent with a) the topography and surface runoff patterns of the golf course, b) consideration of those areas (*i.e.,* tees and greens) wherein the heavier application of arsenic-containing products was likely, and c) use of a general criterion of sampling every 300 feet along the property line to generally address application of pesticides/herbicides in the fairways. The exact locations for delineation sampling will be provided to the Department, once the tees and greens data are reviewed. At each proposed sampling location, soil samples will be gathered from land surface to 6-inches bls, 6-inches to 2 ft bls, and 2 to 4 ft bls. Soil samples will be analyzed for the presence of arsenic by EPA Method 6010. Because of the magnitude of this effort over a 44-acre site, HSA will collect all of the samples, but will analyze in phases starting with the shallow samples and progressively working deeper as the resulting data dictates.

Comment 4: *It is not clear from the data if all of the greens and tees were sampled, or if a representative number of greens were sampled. Typically we see the highest concentration of contaminants on the tees and greens with lower concentrations found in the fairways. It is not clear on the maps because the sample locations do not appear to correspond to locations of the tees and greens that are seen in the aerial photographs.*

Response: To date, samples of the tees and greens has not been conducted, however soil samples have been collected adjacent to both tees and greens. In order to further evaluate the potential for arsenic soil impacts on the tees and greens, eighteen (18) additional soil borings are proposed at alternating tees and greens throughout the subject site (see **Figure 3** for hole locations). At each proposed sampling location, soil samples will be gathered from land surface to 6-inches bls, 6-inches to 2 ft bls, and 2 to 4 ft bls. Soil samples will be analyzed for the presence of arsenic by EPA Method 6010. It should be noted that tee and green sampling results will be evaluated to determine trends in arsenic concentrations. All potential for future exposure associated with arsenic in soils located on the subject

site will be managed through the use of an engineering/institutional control as part of site redevelopment.

Comment 5: *It is not clear why the proposed interim source removal does not extend down to the area surrounding the CSS-8 soil sample location. Arsenic is present at 8.3 mg/kg at this location at the 0-2' interval. No soil samples were taken below 2' at this location and several other locations where the residential SCTL was exceeded. The area around the maintenance facility needs to be fully delineated to residential and/or leachability SCTLs as described below. The area to be excavated may need to be expanded.*

Response: Acknowledged.

Comment 6: *It does not appear that soil samples have been taken down to the water table. This information will be important to know, once a leachability SCTL is established (see below).*

Response: Historically, the water table beneath the subject site was determined to be between 4 and 6 ft bls. A total of six soil borings were advanced to a total depth of 16 ft bls in October 2004. A summary of the historical soil sampling arsenic analytical results is included as **Table 2** and a site plan depicting the locations of the historical soil sampling locations is included as **Figure 1A**. Soil samples were gathered at two-foot intervals to the total depth of the boring for arsenic analysis. The results of the subsequent arsenic analysis did not identify any soil samples that exhibited arsenic concentrations above its respective SCTLs.

LEACHABILITY SCTL FOR ARSENIC

Comment 1: *SPLP testing must be conducted to establish a leachability SCTL for arsenic at the site. This will ensure that all soils with the potential to affect the groundwater at the site are removed or appropriately managed through an engineering control. A representative number of soil samples at various total arsenic concentrations need to be collected and analyzed for both SPLP and total arsenic. Using these data, a correlation curve can be constructed so that the concentration of total arsenic that is acceptable to leave in place without engineering controls is known (leachability SCTL). This should be done before any excavation is done so that the leachability SCTL is known and remedial actions can be planned accordingly.*

Response: In accordance with Chapter 62-780, FAC Risk Management Options-Level II Option IIF, in lieu of SPLP analysis, demonstration (minimum 1 year of GW monitoring) that COCs based on site-specific conditions will not leach at levels > applicable Level I or Level II GCTL, is acceptable. As such, HSA recommends that leachability of arsenic in soil be evaluated based on the presence of groundwater impacts above the GCTL and remedial efforts be focused in areas that exhibit groundwater concentrations above the Natural Attenuation Default Source Concentration (NADSC) of 100 µg/L as established in Chapter 62-777, FAC.

In order to determine remedial objectives in the vicinity of the maintenance facility, HSA revisited the conceptual model for the subject site and evaluated soil analytical data for the vicinity of the maintenance facility and throughout the remainder of the subject site. HSA's conceptual model for the maintenance facility indicates that a discharge of arsenic occurred as a result of historical storage and mixing activities.

On average, the soil concentrations near the maintenance facility are above the soil sorption capacity and leaching is occurring at significant rates that have resulted in associated groundwater impacts. For the remainder of the subject site, arsenic soil impacts are associated with the routine application of arsenic containing herbicides/pesticides. Although arsenic soil impacts exist, the average soil concentration does not exceed the sorbtion capacity of soils, and therefore, does not consistently leach arsenic at elevated levels to groundwater.

Based on the conceptual model, HSA recommends that a site-specific leachability-based SCTL be conservatively determined by simply establishing a site-specific screening level that is scientifically founded on evaluating a conservative mean for the soil quality that exists in the remainder of the site, but (based on the groundwater analytical results) does not (has not) leached to site groundwater. Assuming generally uniform soils throughout the site as confirmed through existing site sampling results, this concentration can be utilized as a cleanup criterion in the vicinity of the maintenance facility to ensure that the concentrations of arsenic left in-place following excavation, do not exceed the average concentration for the remainder of the site, thereby assuring that future leaching does not occur.

The calculation for the maintenance facility was executed with data from soil sample boring locations P-3, CSS-32 through CSS-41, CSS-7, and CSS-51. The

data from the remaining soil borings were utilized to determine site-wide average soil concentrations. The results of the analysis indicate a target remedial concentration for the upper 2 feet of 4.9 mg/kg. The target remedial concentration for the 2 to 4 ft bls samples was calculated to be 2.5 mg/kg. For comparison, the average arsenic soil concentration in the maintenance area is 22 mg/kg from the top 2 feet and 5 mg/kg for 2 to 4 ft bls. Summaries of the calculations are included as **Appendix A**.

DELINEATION TO PROPERTY BOUNDARIES

Comment 1: *Many locations adjacent to off-site properties do not show delineation to the residential SCTL for arsenic. For example, CSS-2, CSS-20, SS-8, CSS-25, and CSS-31, as well as others, exceed the residential SCTL for arsenic at the 0-2 feet depth interval.*

Response: Comprehensive delineation of site-wide arsenic soil impacts has been proposed based on a number of criteria and site features detailed earlier.

Comment 2: *As noted above, samples collected at the 0 – 2-foot interval that were below the SCTL may be above the SCTL at the 0 – 6-inch interval. Delineation should be done to the property boundaries.*

Response: As discussed in the previous response, soil sampling will be conducted at the shallower depth and along the property boundary.

PESTICIDES IN SOIL

Comment 1: *The Report states, "because surrounding soils are impacted with arsenic as a result of routine legal herbicide/pesticide application, confirmation sampling is not recommended". The Department does not concur with this conclusion. The Department has not adopted the EPA ruling regarding legally applied pesticides at this time. In addition, HSA has indicated that closure under Chapter 62-780 is being pursued.*

Response: To date, herbicides/pesticides have not been detected in soil or groundwater beneath the site above applicable regulatory levels. Nevertheless, herbicide and pesticide confirmation soil sampling will be conducted in the area of MW-2 as well as the maintenance area following interim source removal activities. In

addition, arsenic confirmation soil sampling is also proposed (see **Comment 1 under Additional Comments on the Interim Source Removal Plan below**).

Comment 2: *Locations where high arsenic impacts were found were not tested for pesticides, a likely co-located contaminant.*

Response: Recent soil sampling included analyzing four soil samples in the vicinity of the maintenance facility for the presence of herbicides/pesticides. Because historical groundwater analytical data did not indicate the presence of any herbicides/pesticides above regulatory standards near the maintenance facility, recent soil sampling was focused on evaluating near surface soil quality (as the herbicide/pesticide mixing appears to have resulted in a surface release). Nevertheless, three additional soil borings are proposed to further evaluate the potential presence of herbicides/pesticides. The three soil borings will be advanced adjacent to historical soil sampling locations CSS-7, CSS-33, and CSS-40 (see **Figure 1A** for previous sampling locations). Soil samples will be gathered from land surface to 6 inches, 6 inches to 2 ft bls, 2 to 4 ft bls, and 4 to 6 ft bls for laboratory analysis for the presence of herbicides by EPA Method 8151 and pesticides by EPA Method 8081.

Comment 3: *The sampling plan for pesticides has not been justified to the Department's satisfaction. Pesticides were not tested for at any depths other than 0 – 6 inches. The reasoning behind the sampling locations is not clear, as they do not appear to correspond to potential mixing areas.*

Response: Because the highest arsenic soil concentrations were detected in the shallow depth samples and because the release near the maintenance facility is suspected to be a surface release, herbicide/pesticide sampling was conducted from land surface to 6-inches bls near the maintenance facility. As discussed above, additional herbicide/pesticide sampling is proposed at deeper depths in the vicinity of the maintenance facility and in the vicinity of monitoring well MW-2.

Comment 4: *Chapter 62-780 requires sampling down to the water table.*

Response: Acknowledged. Additional sampling will include testing down to the water table.

Comment 5: *An appropriate number of samples should be collected in the area surrounding MW-2 and analyzed for pesticides.*

Response: See response to Comment 2 under Appropriate Soil Sampling Within the Property.

Comment 6: *Units for the SCTLs for pesticides and herbicides in Table 3 are incorrect. They should be in mg/kg, not ug/kg.*

Response: Acknowledged. The corrected **Table 3** is attached.

SURFACE WATER

Comment 1: *The Freshwater Surface Water Criteria of 50 µg/L for arsenic was exceeded at the pond located south of the maintenance area. Although a second sample (49 µg/L) from the pond indicated arsenic below the Surface Water Criteria, surface water at the pond should be re-sampled after excavation activities are complete.*

Response: Acknowledged. A surface water sample will be gathered from the pond following excavation activities. The sample will be analyzed for the presence of arsenic by EPA Method 6010.

OTHER CONCERNS

Comment 1: *Arsenic concentrations above the Department's Groundwater Cleanup Target Levels were found in public supply wells 56, 58, and 63. The Report suggests that the arsenic found in these public supply wells may be widespread and indicative of the local background groundwater quality. At this time, there is not enough data to support this conclusion.*

Response: Acknowledged. HSA will attempt to obtain additional information regarding arsenic in groundwater at other public supply wells in the vicinity of the subject site to further evaluate the potential for the presence of arsenic to be the result of local background conditions. Specifically, HSA will provide documentation pertaining to area-wide geology/hydrogeology with specific emphasis on the depth of likely confining/semi-confining units, casing depths of the on-site public supply wells, and the distinctions between shallow versus deep groundwater quality.

Comment 2: *Groundwater sampling data sheets are not all completely filled out. Among the missing information is – purge rate, purge volume, site name, decon information, filtered or not filtered, preservatives not indicated, calibration of*

instruments not indicated, sampler's signature, etc. FDEP SOPs should be followed.

Response: Acknowledged. Completed groundwater sampling data sheets will be included in future reports.

Comment 3: *According to the data sheet MW-002 was purged for approximately 1.5 hours and TW012 was purged for half an hour, but no volumes were recorded.*

Response: Approximately 19 liters (5 gallons) of water was purged from monitoring well MW-2 and approximately 9 liters (2.3 gallons) of water was purged from monitoring well TW-12. Completed groundwater sampling data sheets will be included in future reports.

Comment 4: *Monitoring well completion reports are incomplete. Among information that is missing – well development data, type of well completion, top of casing, soil profile, etc.*

Response: Acknowledged. Revised well completion reports are included as **Appendix B.**

Comment 5: *Figure 4 in the SARA differs from Figure 3 of the SAR in regard to the locations of the irrigation wells and the City of Clearwater water supply wells. The descriptions are switched in the map legends. Please indicate the correct locations of these wells.*

Response: Figure 4 of the SARA depicts the actual locations of irrigation wells and the City of Clearwater water supply wells. The locations depicted in Figure 3 of the SAR were incorrectly located.

Comment 6: *No isoconcentration contour maps of groundwater are included. These should be included in the next SARA submittal.*

Response: Figure 3 of the Interim Source Removal Plan and Groundwater Monitoring Plan dated July 2006 included an isocontour depicting the approximate extent of arsenic in groundwater near the maintenance facility. An isocontour for the vicinity of monitoring well MW-2 is included in **Figure 1B**.

Comment 7: *No groundwater flow map for the entire site is presented. This should be included in the next SARA submittal.*

Response: Acknowledged. A groundwater flow map for the entire site is included as **Figure 2**. Groundwater elevation data are included in **Table 1**.

ADDITIONAL COMMENTS ON THE INTERIM SOURCE REMOVAL PLAN

Comment 1: *If excavation is done down to the water table, bottom confirmatory sampling is not required. However, sidewall confirmatory samples are required [62-780.500(5) 5].*

Response: Acknowledged. Four sidewall confirmatory samples will be gathered following excavation activities. The sidewall confirmation samples will be analyzed for the presence of arsenic by EPA Method 6010, herbicides by EPA Method 8151 and pesticides by EPA Method 8081.

Comment 2: *TCLP analysis should be done on excavated soils to ensure proper disposal. [62-780.500(5) 6].*

Response: Acknowledged. TCLP analysis will be conducted during the next sampling event. Because arsenic is the only chemical of concern, arsenic TCLP analysis will be conducted.

Comment 3: *Sidewall confirmatory samples should be taken post excavation, especially in the northern portion where arsenic is present at 48 mg/kg at the 0-2' interval.*

Response: Acknowledged. Post excavation sampling will include soil sampling at the northern portion of the maintenance area. It is understood that the Department will require soil and groundwater quality delineation of this area consistent with the requirements for the remainder of the site.

Comment 4: *Although the proposed dimensions of the excavation are given, an estimated volume is not given for the excavation. It is also not clear that the proposed stockpile area is large enough to handle the volume (approximately 1,555 cubic yards based on the dimensions given).*

Response: During excavation, HSA will attempt to direct-load the majority of the excavated soils. Although direct-load is desired, temporarily stockpiling of a portion of the arsenic-impacted soils will likely be required. The location of the proposed stockpile area is included in **Figure 7**.

Comment 5: *The proposed stockpile area is reported to be on Figure 4, but does not appear on the Figure.*

Response: The location of the proposed stockpile area is included in **Figure 7**.

Comment 6: *A plan should be included in the SARA to detail provisions to ensure that contaminated soils are not spread into uncontaminated areas. This includes trucks, truck tires, ingress and egress from the site and decontamination procedures. The exclusion zone should be secure through use of a fence or other measures to prevent access to the site.*

Response: Acknowledged. The SARA will include a plan to ensure that contaminated soils are not spread into uncontaminated areas.

Comment 7: *A stormwater runoff plan should also be included in the SARA. How will the stockpile be covered in the event of rainfall?*

Response: Acknowledged. A stormwater runoff plan will be included in the SARA.

Comment 8: *As previously stated, the leachability SCTL for arsenic should be determined to ensure that all soils that exceed the leachbility SCTL are removed.*

Response: See response to Comment 1 under Leachability SCTL for Arsenic above.

Comment 9: *No reference is made as to what fill material will be used to fill the excavation after the contaminated soil is removed.*

Response: The excavation area will be backfilled with certified clean fill.

PROPOSED GROUNDWATER MONITORING PLAN

Comment 1: *It is premature to propose a monitoring plan prior to completion of the SAR.*

Response: Acknowledged.

CONCLUSIONS

The above responses were prepared in order to provide the Department with information regarding additional investigations that will be conducted at the subject site. These responses have been amended to address those concerns and requests by the Department during our most recent meeting of the 13th of October. Again, the goal of this response is to memorialize our rationale for proposed additional assessment activities and to confirm that both our approach and site-specific sampling location activities are consistent with the Department's understanding of what it will require as a condition for obtaining written agency approval of the proposed remedial approach for the site in December.

HSA has previously presented a remedial approach for the subject site that will facilitate site redevelopment and valuable use of the subject site that was formerly operated as an executive golf course. The plan includes the use of engineering/institutional controls to prevent exposure of arsenic to future on-site residents. We believe that the information presented above along with the proposed additional sampling activities are adequate for determining the nature and extent of contamination at the subject site for the Department to approve the site assessment requirements and the proposed remedial approach for the site under Chapter 62-780, FAC.

We look forward to any additional comment regarding the scope and objectives as articulated herein. In the meantime, feel free to contact us if you have any questions.

Sincerely,
HSA Engineers & Scientists

Brian Moore, P.E.
Environmental Program Manager

Nicholas Albergo, P.E., DEE
Chairman

TABLES

Table 1
Summary of Groundwater Elevation Data
Countryside Executive Golf Course; Clearwater, Florida
HSA Project Number 6015982-00

Well ID	TOC Elevation	Depth to Water	Water Elevation
6/7/2006			
DW-1	100	6.65	93.35
TW-1	103.52	8.51	95.01
TW-2	104.58	9.18	95.4
TW-3	102.66	6.92	95.74
TW-4	102.77	7.74	95.03
TW-10	100.56	6.81	93.75
TW-11	100.48	7.74	92.74
TW-12	102.92	8.32	94.6
Pond A	-	-	93.62
10/12/2006			
DW-1	100	6.71	93.29
TW-1	103.52	6.56	96.96
TW-2	104.58	7.23	97.35
TW-3	102.66	4.36	98.3
TW-4	102.77	5.81	96.96
TW-6	105.45	7.29	98.16
TW-7	106.05	9.16	96.89
TW-10	100.56	4.86	95.7
TW-11	100.48	5.22	95.26
TW-12	102.92	6.37	96.55
TW-14	105.5	8.06	97.44
TW-15	106.21	8.45	97.76
MW-1	105.78	9.01	96.77
MW-2	106.82	9.51	97.31
MW-3	103.44	6.27	97.17
MW-4	102.94	6.41	96.53
Pond A	-	-	96.31
Pond B	-	-	97.25

Notes:
TOC-top of casing
All elevations are in feet

Table 2
Summary of Arsenic Soil Analytical Data
Countryside Executive Golf Course, Clearwater, Florida
HAS Project Number 6015982-00

Depth (ft)	Sample ID									
	CSS-1	CSS-2	CSS-3	CSS-4	CSS-5	CSS-6	CSS-7	CSS-8	CSS-9	CSS-10
	8/26/2004	8/26/2004	8/26/2004	8/26/2004	8/26/2004	8/26/2004	8/26/2004	8/26/2004	8/26/2004	8/26/2004
0 - 2' (a)	2.1	1.6	1.2	**8.6**	**3.1**	2.7	**9.0**	**8.3**	**3.2**	**5.1**

Depth (ft)	Sample ID									
	CSS-11	CSS-12	CSS-13	CSS-14	CSS-15	CSS-16	CSS-17	CSS-18	CSS-19	CSS-20
	10/4/2004	10/4/2004	10/5/2004	10/5/2004	10/5/2004	10/5/2004	10/5/2004	10/5/2004	10/5/2004	10/1/2004
0 - 2' (a)	0.62	0.9	1.1	0.151	0.201	0.351	**2.2**	1.0	1.3	**3.0**
2' - 4' (b)	<0.14	0.351	0.181	<0.15	0.94	0.56	**3.5**	0.72	0.381	0.441

Depth (ft)	Sample ID									
	CSS-21	CSS-22	CSS-23	CSS-24	CSS-25	CSS-26	CSS-27	CSS-28	CSS-29	CSS-30
	10/5/2004	10/1/2004	10/1/2004	10/1/2004	10/1/2004	10/1/2004	10/1/2004	10/1/2004	10/1/2004	10/1/2004
0 - 2' (a)	**9.2**	**7.2**	1.6	**2.7**	**5.9**	**7.9**	**2.6**	**7.2**	**9.8**	**9.9**
2' - 4' (b)	0.311	0.69	0.351	0.451	**3.3**	0.231	1.4	0.301	0.41	0.72

Depth (ft)	Sample ID									
	CSS-31	CSS-32	CSS-33	CSS-34	CSS-35	CSS-36	CSS-37	CSS-38	CSS-39	CSS-40
	10/1/2004	10/7/2005	10/7/2005	10/7/2005	10/7/2005	10/7/2005	10/7/2005	10/7/2005	10/7/2005	10/7/2005
0 - 2' (a)	**25**	**3.5**	**48**	**4.4**	**2.8**	1.81	<0.63	**7.9**	**6.8**	**13**
2' - 4' (b)	0.281	**3.0**	<0.8	**7.1**	**5.3**	**3.9**	1.5	1.61	<0.76	1.5

Depth (ft)	Sample ID									
	CSS-41	CSS-42	CSS-43	CSS-44	CSS-45	CSS-46	CSS-47	CSS-48	CSS-49	CSS-50
	10/7/2005	11/16/2004	11/16/2004	11/16/2004	11/16/2004	11/16/2004	11/15/2004	11/15/2004	11/15/2004	11/15/2004
0 - 2' (a)	1.3	0.291	**2.3**	1.4	**3.8**	1.4	1.8	**5.0**	**3.5**	**3.8**
2' - 4' (b)	0.76	0.231	0.57	0.321	1.1	**3.2**	**2.4**	0.60	0.411	1.9

Depth (ft)	Sample ID									
	CSS-51	P1	P2	P3	P4	P5	P6			
	11/15/2004	10/6/2004	10/6/2004	10/6/2004	10/6/2004	10/6/2004	10/6/2004			
0 - 2' (a)	0.80	<0.72	<0.63	<0.76	<0.90	<0.75	0.711			
2' - 4' (b)	1.7	<0.66	<0.78	<0.67	<0.73	<0.72	<0.73			
4' - 6' (c)		<0.75	<0.75	<0.70	<0.73	<0.71	<0.68			
6' - 8' (d)		<0.65	<0.75	<0.76	<0.74	<0.64	<0.73			
8' - 10' (e)		<0.80	1.11	<0.72	<0.76	<0.75	<0.68			
10' - 12' (f)		<0.75	<0.78	<0.66	<0.69	<0.66	<0.74			
12' - 14' (g)		<0.75	<0.81	<0.76	<0.67	<0.72	<0.75			
14' - 16' (h)		<0.68	1.21	<0.67	<0.75	<0.64	<0.70			

Depth (ft)	Sample ID									
	SS-1	SS-2	SS-3	SS-4	SS-5	SS-6	SS-7	SS-8	SS-9	SS-10
	7/5/2005	7/5/2005	7/5/2005	7/5/2005	7/5/2005	7/5/2005	7/5/2005	7/5/2005	7/5/2005	7/5/2005
0 - 6" (a)	**6.15**	**17.3**	**3.01**	**13**	**10.8**	**20.9**	<0.391	**4.24**	**11.9**	**13.1**
6" - 2' (c)	**6.26**	1.59	<0.396	**2.32**	1.71	0.588	1.11	0.612	1.74	1.29
2' - 4' (e)	0.694	1.41	<0.288	**5.23**	<0.379	0.43	12.7	<0.308	**2.2**	<0.401

Depth (ft)	Sample ID									
	MW-2 East	MW-2 North	MW-2 West	MW-2 South						
	5/30/2006	5/30/2006	5/30/2006	5/30/2006						
0 - 6"	3.56	6.63	6.38	4.7						

Notes:
ft - feet
mg/kg - milligrams per kilogram
SCTL - Soil Cleanup Target Level as established in Chapter 62-777, Florida Administrative Code
Bold indicates exceedance of the Residential Direct Exposure SCTL of 2.1 mg kg
Shade indicates exceedance of the Commercial/Industrial Direct Exposure SCTL of 12 mg/kg
NA - Not Analyzed
BDL - Below Detection Limits

Table 3
Summary of Supplemtental Analytical Data
Countryside Executive Golf Course, Clearwater, Florida
HSA Project Number 6015982-00

Sample ID	Date	Depth (ft bls)	Arsenic	Chlorinated Pesticides		Chlorinated Herbicides	
				Endosulfan I	All others	2,4'-D	All others
Soil Analytical Data							
			mg/kg	µg/kg	µg/kg	µg/kg	µg/kg
SCTL-Residential Exposure			**2.1**	**450,000**	-	**770,000**	-
SCTL-Commercial Exposure			**12**	**7,600,000**	-	**13,000,000**	-
SB-1	5/31/2006	0-0.5	-	17	BRL	<11	BRL
SB-2	5/31/2006	0-0.5	-	<1.6	BRL	<10	BRL
SB-3	5/31/2006	0-0.5	-	<1.6	BRL	<10	BRL
SB-4	5/31/2006	0-0.5	-	<1.6	BRL	21	BRL
Sediment Composite	5/30/2006	-	3.1	<1.9	BRL	-	-
MW-2 East	5/30/2006	0-0.5	3.56	-	-	-	-
MW-2 South	5/30/2006	0-0.5	4.7	-	-	-	-
MW-2 North	5/30/2006	0-0.5	6.63	-	-	-	-
MW-2 West	5/30/2006	0-0.5	6.38	-	-	-	-
Groundwater Analytical Data							
			µg/L	µg/L	µg/L	µg/L	µg/L
GCTL			**10**	**42**	-	**70**	-
FSWC			**50**	**0.056**	-	**80**	-
MW-1R	6/5/2006	2-12	<5	-	-	-	-
MW-2	5/30/2006	2-12	37.3	-	-	-	-
	6/13/2006	2-12	79.8	-	-	-	-
TW-12	6/13/2006	2.25-12.25	5.44	-	-	-	-
TW-14	6/13/2006	2-12	<5				
TW-15	6/13/2006	2-12	<5				
TW-16	6/13/2006	2-12	<5				
Surface Water	5/30/2006	-	152	<0.051	BRL	-	-
	6/13/2006	-	49	-	-	-	-

Notes:

ft bls - feet below land surface

SCTL - Soil Cleanup Target Level as established in Chapter 62-777, Florida Administrative Code (FAC)

GCTL - Groundwater Cleanup Target Level as established in Chapter 62-777, FAC

FSWC - Freshwater Surface Water Criteria as established in Chapter 62-777, FAC

2,4'-D - 2,4-dichlorophenoxyl acetic acid

mg/kg - milligrams per kilogram

µg/L - micrograms per liter

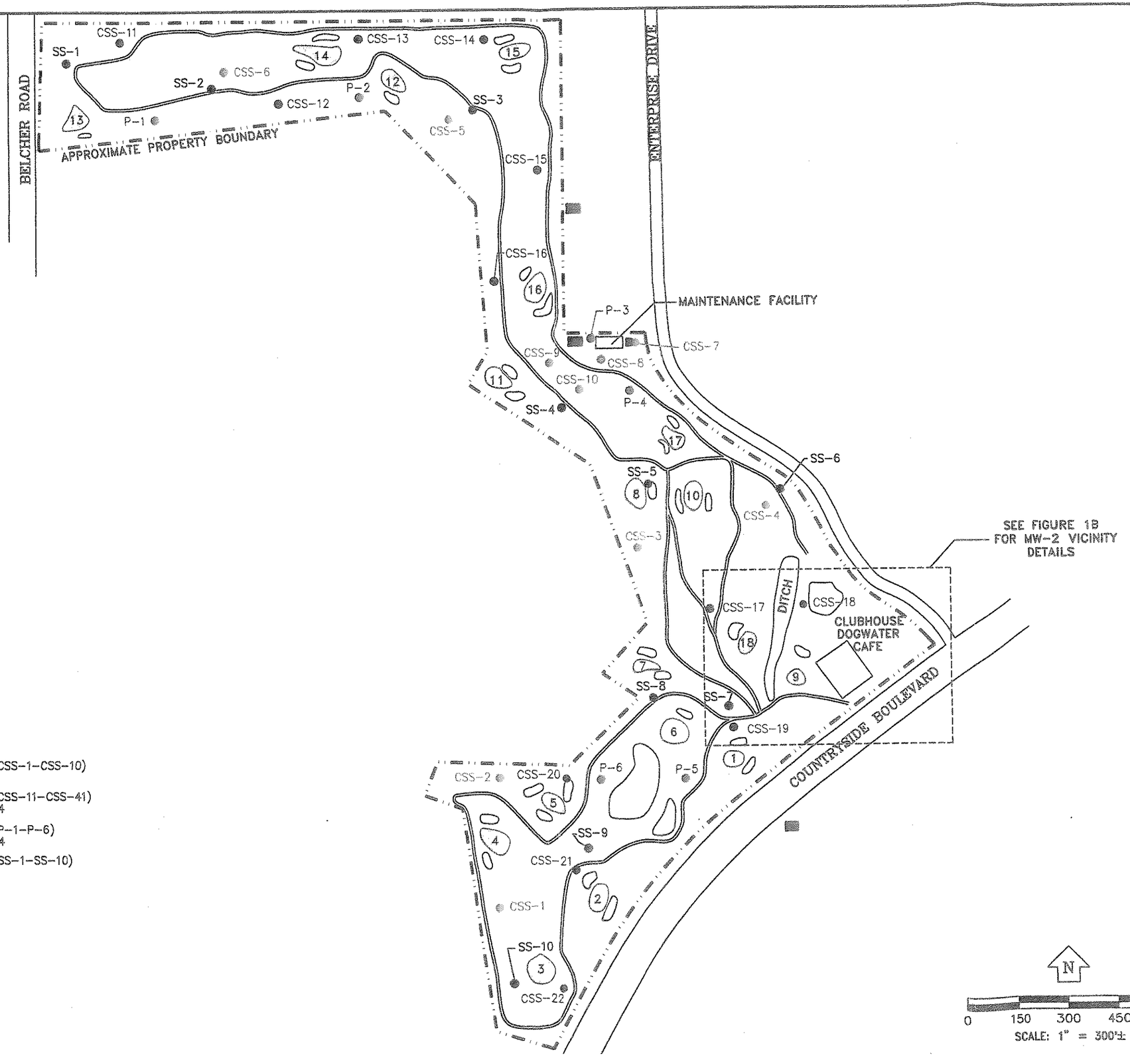
mg/L - milligrams per liter

- - Compound not analyzed for specific analyte

BRL - Below laboratory reporting limit

Bold indicates that the default Residential SCTL or the default GCTL was exceeded.

FIGURES



LEGEND

- ABOVEGROUND STORAGE TANK LOCATION
- SOIL SAMPLE LOCATIONS (CSS-1-CSS-10) TAKEN AUGUST 26, 2004
- SOIL SAMPLE LOCATIONS (CSS-11-CSS-41) TAKEN OCTOBER 1-7, 2004
- SOIL SAMPLE LOCATIONS (P-1-P-6) TAKEN OCTOBER 1-7, 2004
- SOIL SAMPLE LOCATIONS (SS-1-SS-10) TAKEN JULY 5, 2005

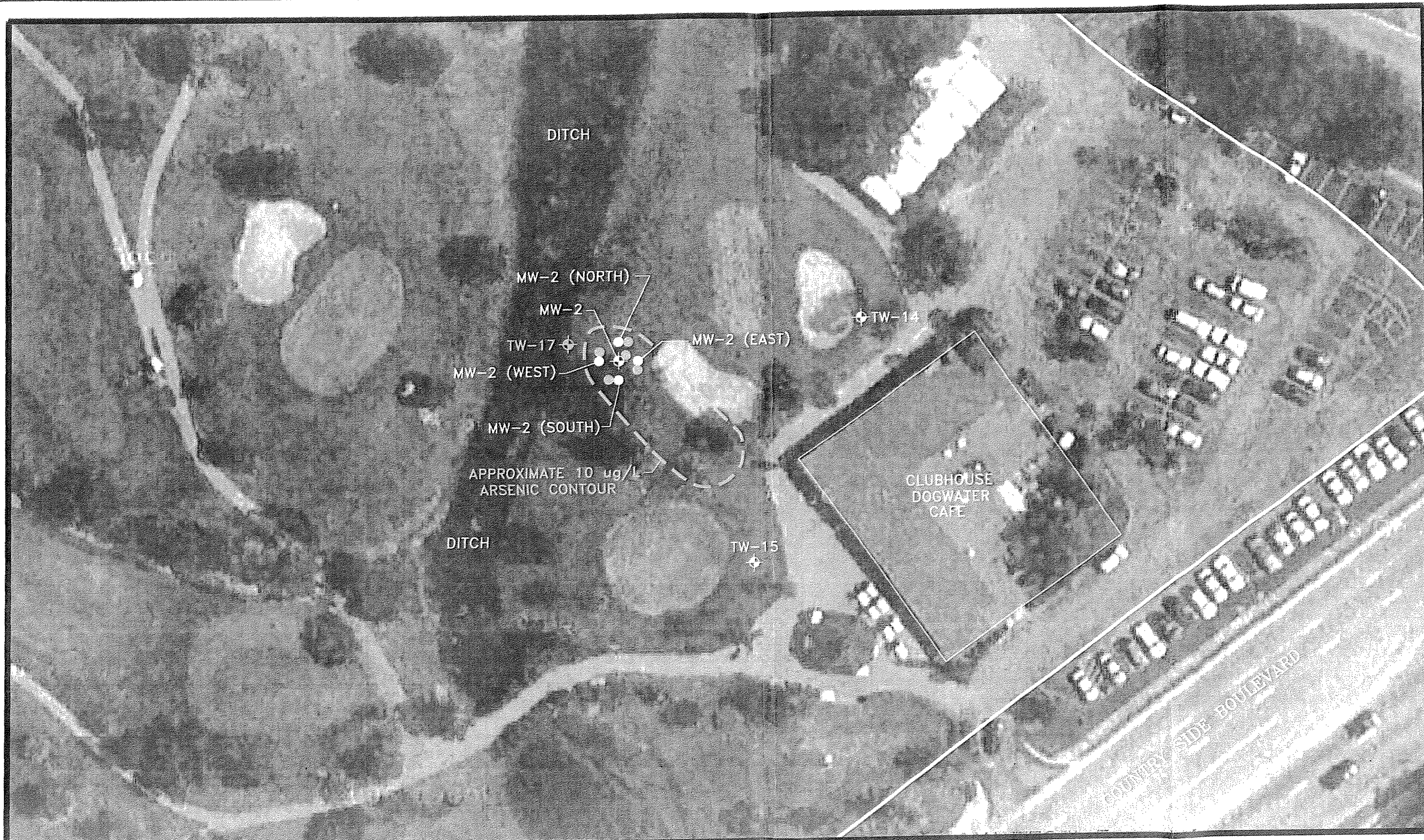
COUNTRYSIDE EXECUTIVE GOLF COURSE
2506 COUNTRYSIDE BOULEVARD
CLEARWATER, FLORIDA

HSA ENGINEERS & SCIENTISTS
4019 E. Fowler Avenue Tampa, Florida 33617
Tel: (813) 971-3882

JOB NO.: 601598200	DESIGNED N/A		
DATE: 10/3/06	DRAWN SBW		
CAD NO.: 598200-1A	CHECKED BM		

SHEET TITLE
HISTORICAL SOIL SAMPLING LOCATIONS MAP

FIGURE 1A



LEGEND

MW-2 — TEMPORARY MONITOR WELL LOCATIONS (WHITE TEXT)
MW-2 (SOUTH) — SOIL BORING LOCATION (WHITE TEXT) (MAY 2006)
TW-14 — PROPOSED MONITOR WELL LOCATIONS
PROPOSED SOIL BORING LOCATION

N

0 25 50 75 100
SCALE: 1" = 50'±

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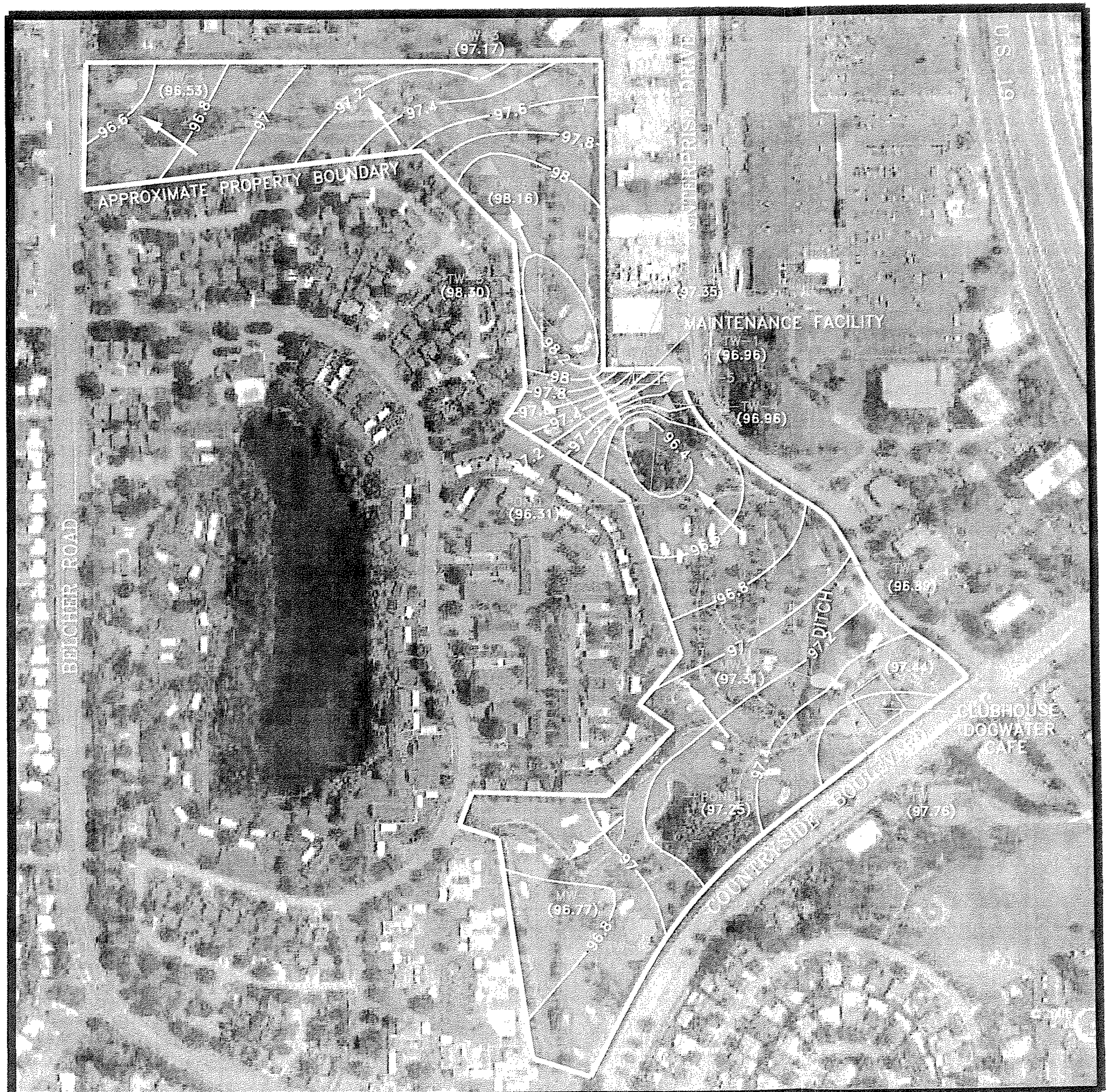
SHEET TITLE
MONITORING WELL MW-2 AND VICINITY

FIGURE 1B

3:\DESIGN\HSA-Drafting\60 Environmental\2005\Countryside Executive Center 6015892\october\589200-01



LEGEND

- TEMPORARY MONITOR WELL LOCATIONS (TW-1–TW-3) INSTALLED AUGUST 27, 2004
- TEMPORARY MONITOR WELL LOCATIONS (TW-4–TW-7) INSTALLED OCTOBER 6, 2004
- MONITOR WELL LOCATION (MW-1–MW-4) INSTALLED AUGUST 16, 2005
- SURFACE WATER/SEDIMENT SAMPLE LOCATION
- TEMPORARY MONITOR WELL LOCATIONS (TW-14–TW-16) INSTALLED JUNE 13, 2006
- (97.17) GROUNDWATER ELEVATION IN FEET
- 97.2 GROUNDWATER ELEVATION COUNTOUR IN FEET
- INFERRED GROUNDWATER FLOW DIRECTION

NOTE: GROUNDWATER INFORMATION SHOWN IN WHITE

N

0 175 350 525 700

SCALE: 1" = 350'±

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CLEARWATER, FLORIDA

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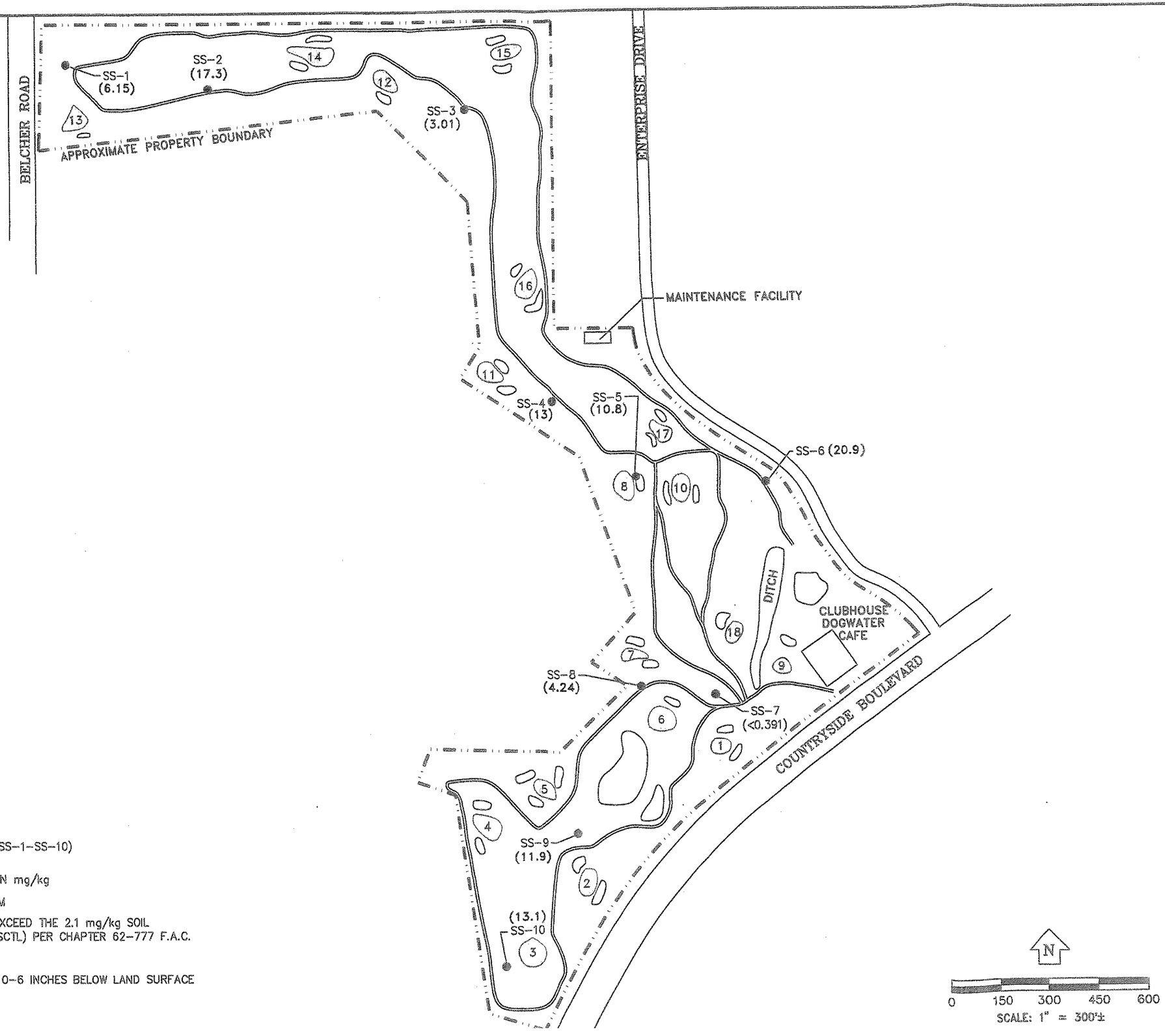
CHECKED	BM	CAD NO.:	598200-02

SHEET TITLE
GROUNDWATER ELEVATION MAP (10/12/06)

FIGURE 2

G:\DESIGN\HSA-Drafting\60 Environmental\2005\Countryside Executive Center 6015892\OCTOBER\589200-02



LEGEND

- ● SOIL SAMPLE LOCATIONS (SS-1-SS-10) TAKEN JULY 5, 2005
- (<0.396) ARSENIC CONCENTRATION IN mg/kg
- mg/kg MILLIGRAMS PER KILLOGRAM
- (RED) DENOTES VALUES WHICH EXCEED THE 2.1 mg/kg SOIL CLEANUP TARGET LEVEL (SCTL) PER CHAPTER 62-777 F.A.C.

NOTE: SAMPLE DEPTH TAKEN AT 0-6 INCHES BELOW LAND SURFACE

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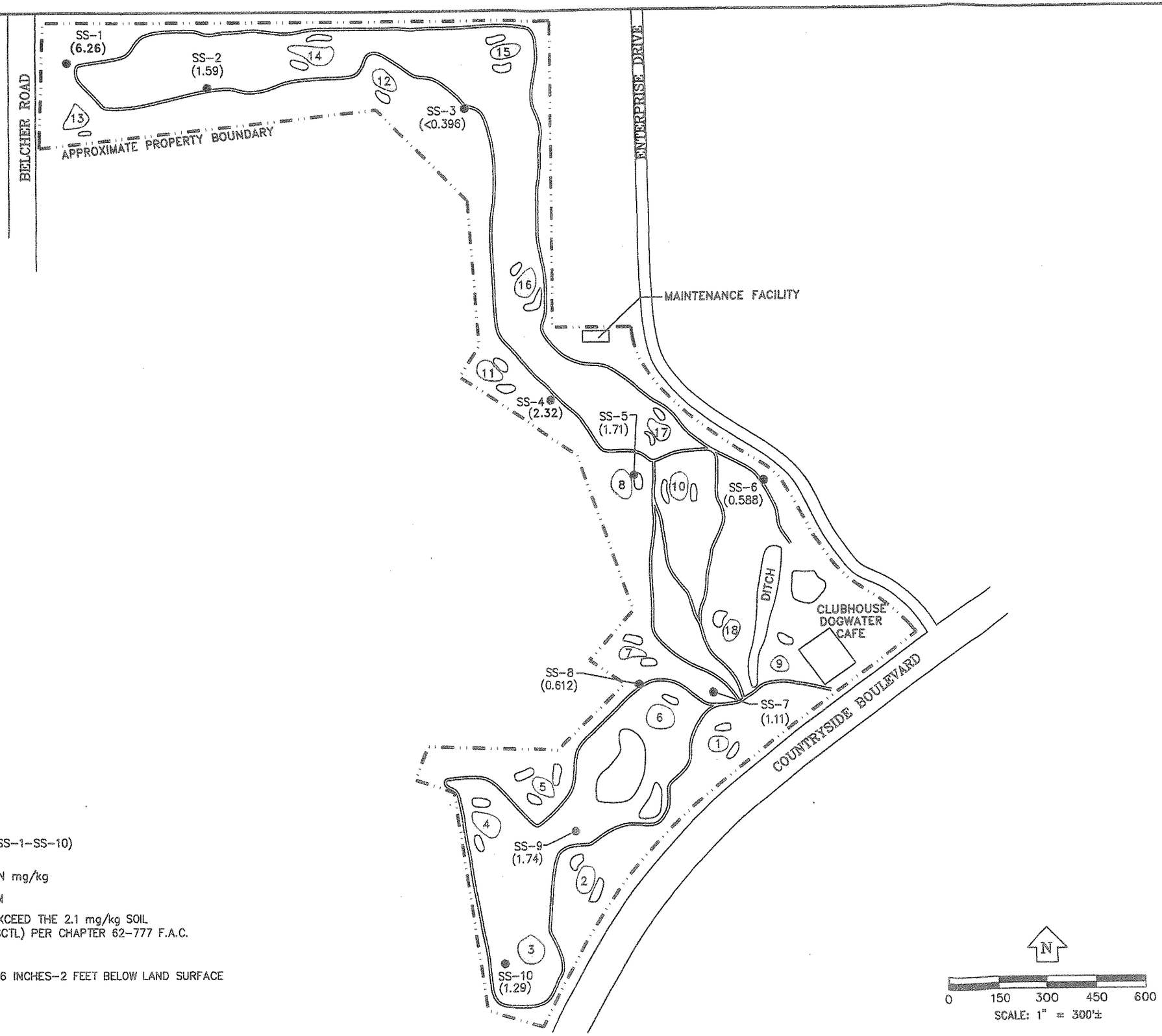
CHECKED	BM	CAD NO:	598200-03

SHEET TITLE
SOIL ARSENIC CONCENTRATIONS (0-6")

FIGURE 3

\DESIGN\HSA-Drafting\60 Enviromental\2005\Countryside Executive Center 60115892\October\589200-03



LEGEND

●	SOIL SAMPLE LOCATIONS (SS-1-SS-10) TAKEN JULY 5, 2005
(<0.396)	ARSENIC CONCENTRATION IN mg/kg
mg/kg	MILLIGRAMS PER KILLOGRAM
(RED)	DENOTES VALUES WHICH EXCEED THE 2.1 mg/kg SOIL CLEANUP TARGET LEVEL (SCTL) PER CHAPTER 62-777 F.A.C.

NOTE: SAMPLE DEPTH TAKEN AT 6 INCHES-2 FEET BELOW LAND SURFACE

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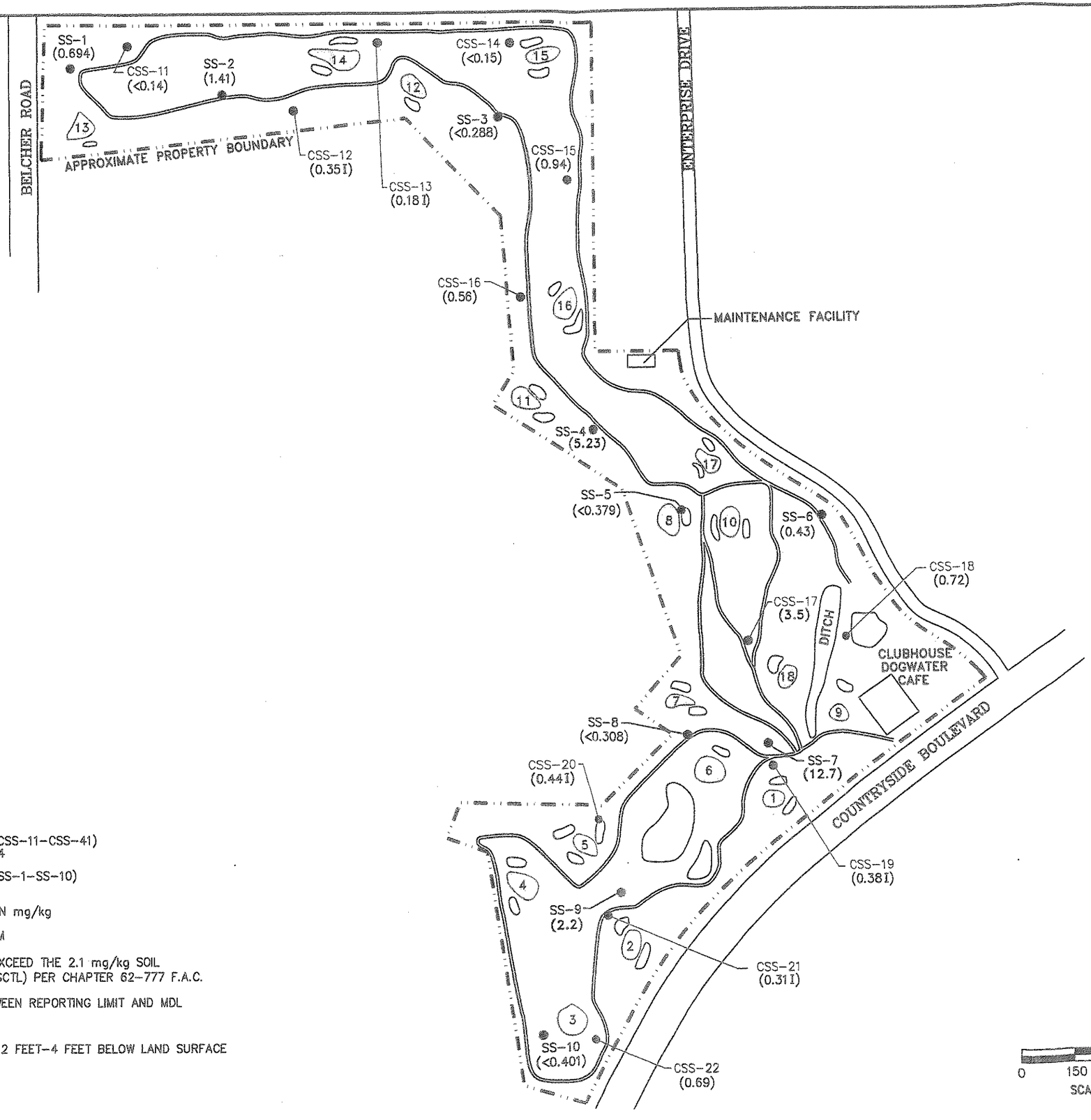
DRAWN	SBW	DATE:	10/3/06
CHECKED	BM	CAD NO:	598200-04

SHEET TITLE
SOIL ARSENIC CONCENTRATIONS (6"-2')

FIGURE 4

G:\DESIGN\HSA-Drafting\60 Environmental\2005\Countryside Executive Center 60158892\October\589200-04



LEGEND

- ● SOIL SAMPLE LOCATIONS (CSS-11–CSS-41) TAKEN OCTOBER 1–7, 2004
- ● SOIL SAMPLE LOCATIONS (SS-1–SS-10) TAKEN JULY 5, 2005
- (<0.396) ARSENIC CONCENTRATION IN mg/kg
- mg/kg MILLIGRAMS PER KILLOGRAM
- (RED) DENOTES VALUES WHICH EXCEED THE 2.1 mg/kg SOIL CLEANUP TARGET LEVEL (SCTL) PER CHAPTER 62–777 F.A.C.
- I INDICATES RESULT IS BETWEEN REPORTING LIMIT AND MDL

NOTE: SAMPLE DEPTH TAKEN AT 2 FEET–4 FEET BELOW LAND SURFACE

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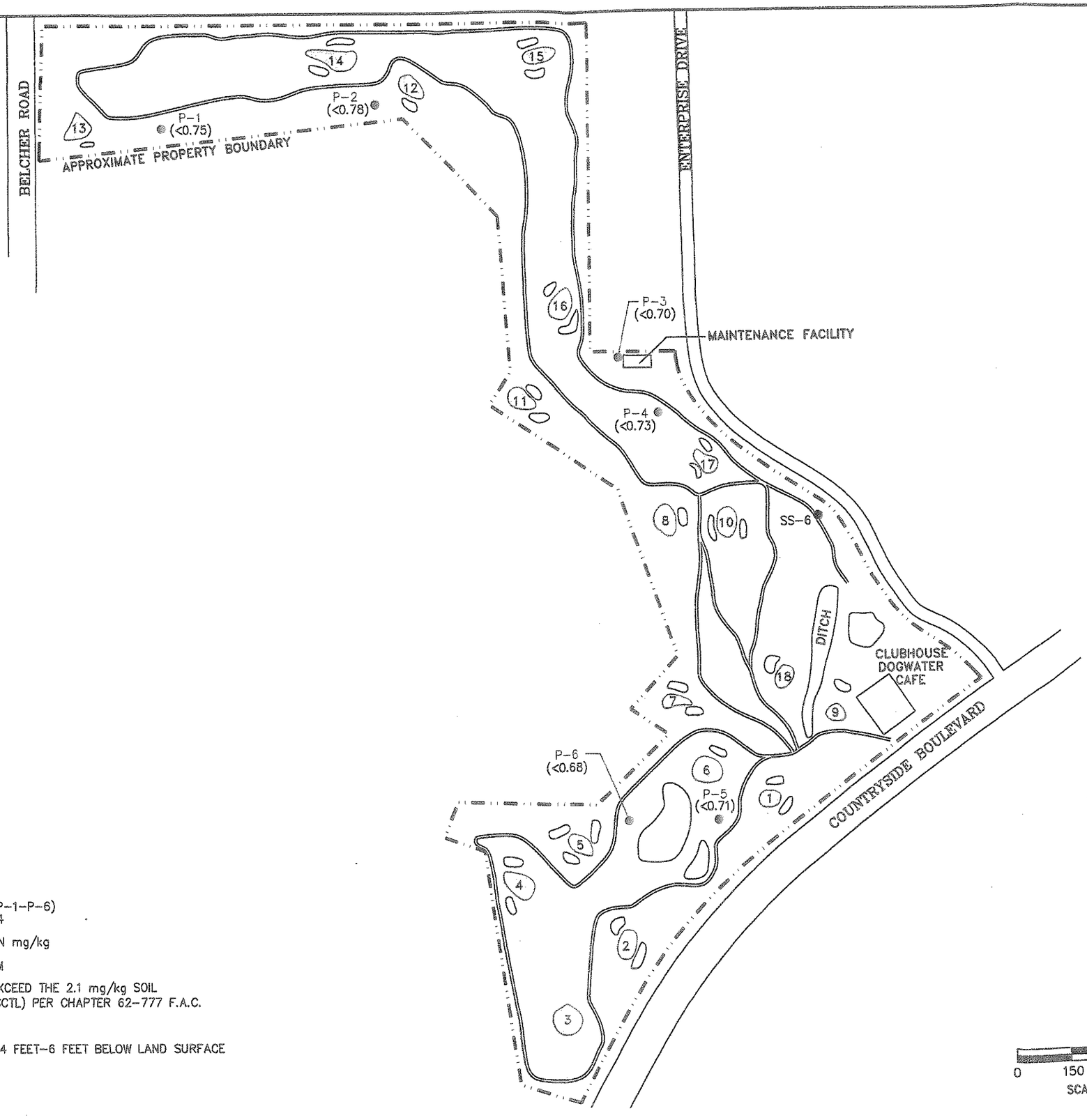
JOB NO.: 601598200	DATE: 10/3/06	CAD NO: 598200-05	
DESIGNED N/A	DRAWN SBW	CHECKED BM	

SHEET TITLE
SOIL ARSENIC CONCENTRATIONS (2'–4')

FIGURE 5

G:\DESIGN\HSA-Drafting\60 Environmental\2005\Countryside Executive Center 60158921\October\589200-05



LEGEND

- ● SOIL SAMPLE LOCATIONS (P-1-P-6) TAKEN OCTOBER 1-7, 2004
- (<0.75) ARSENIC CONCENTRATION IN mg/kg
- mg/kg MILLIGRAMS PER KILLOGRAM
- (RED) DENOTES VALUES WHICH EXCEED THE 2.1 mg/kg SOIL CLEANUP TARGET LEVEL (SCTL) PER CHAPTER 62-777 F.A.C.

NOTE: SAMPLE DEPTH TAKEN AT 4 FEET-6 FEET BELOW LAND SURFACE

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CLEARWATER, FLORIDA

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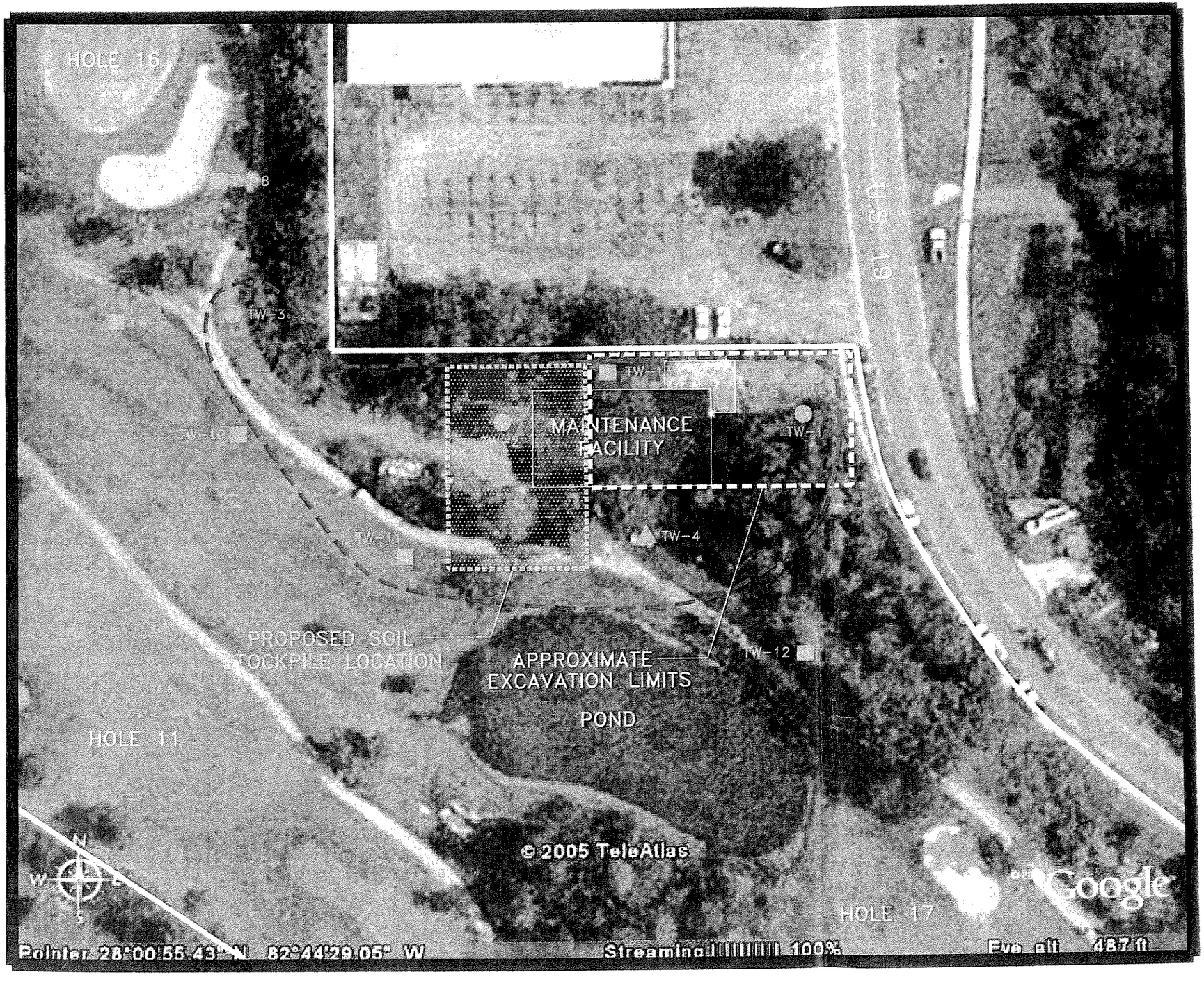
DRAWN	SBW	DATE:	10/3/06
CHECKED	BM	CAD NO:	598200-06

SHEET TITLE
SOIL ARSENIC CONCENTRATIONS (4'-6')

FIGURE 6



LEGEND

AST ■ ABOVEGROUND STORAGE TANK LOCATION

(TEMPORARY MONITOR WELL LOCATIONS (TW-1-TW-3) INSTALLED AUGUST 27, 2004

(TEMPORARY MONITOR WELL LOCATIONS (TW-4-TW-7) INSTALLED OCTOBER 6, 2004

(TEMPORARY MONITOR WELL LOCATIONS (TW-8-TW-13) INSTALLED NOVEMBER 12, 2004

(DEEP MONITOR WELL LOCATION (DW-1) INSTALLED JULY 5, 2005

— — APPROXIMATE EXTENT OF ARSENIC GROUNDWATER IMPACTS ABOVE THE GROUNDWATER CLEAN UP TARGET LEVEL (GCTL) AS ESTABLISHED IN CHAPTER 62-777, F.A.C.

N

0 25 50 75 100

SCALE: 1" = 50'±

COUNTRYSIDE EXECUTIVE GOLF COURSE

2506 COUNTRYSIDE BOULEVARD
CLEARWATER, FLORIDA

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JOB NO.: 601598200	DATE: 10/3/06	CAD NO: 598200-07	
DESIGNED N/A	DRAWN SBW	CHECKED BM	

SHEET TITLE
SOIL EXCAVATION PLAN

FIGURE 7

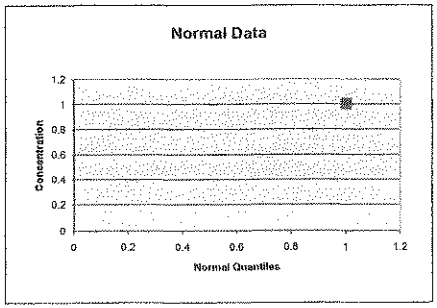
G:\DESIGN\HSA-Drafting\60 Environmental\2006\Countryside Executive Center 601598200\OCTOBER\598200-07

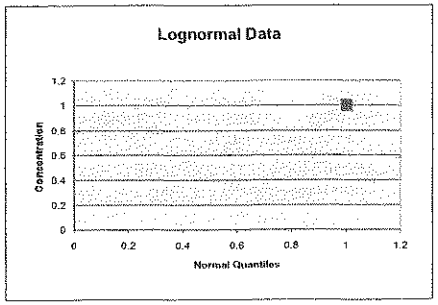
APPENDIX A

PRO-UCL Calculation Summary Sheets

FDEP UCL Calculator Version 1.0

Goodness-of-fit test results





Shapiro-Francia Results (Adjust for Censoring)

SF for Normal Distribution	0
SF for LogNormal Distribution	0
Shapiro-Francia critical value for p<0.05	0.975675

Test stat > critical value indicates a reasonable fit

D'Agostino's Test Results for All Data (BDL replaced with 1/2 DL)

Fit to Normal Distribution	TRUE
Fit to LogNormal Distribution	TRUE

Based on the results of the Shapiro-Wilk's test
Distribution is best described as: Lognormal

Lognormal

FDEP UCL Calculator Version 1.0

10/19/06

Summary Statistics for result (0-2	
Number of Samples	53
Number of Censored Data	4
Minimum	0.15
Maximum	9.9
Mean	3.215849
Median	2.3
Standard Deviation	2.807431
Variance	7.881666
Coefficient of Variation	0.872998
Skewness	0.95599

95% UCL (Assuming Normal Data)	
Student's-t	3.86166

95% UCL (Adjusted for Skewness)	
Adjusted-CLT	3.904328
Modified-t	3.8701

95% Non-parametric UCL	
CLT	3.850211
Jackknife	NA
Standard Bootstrap	3.898059
Bootstrap-t	4.114473
Chebyshev (Mean, Std)	4.896811

Summary Statistics for ln(result (0-2))	
Minimum	-1.89712
Maximum	2.292535
Mean	0.688698
Standard Deviation	1.104607
Variance	1.220157

Goodness-of-Fit Results	
Distribution Recommended	Lognormal
Distribution Used	Lognormal

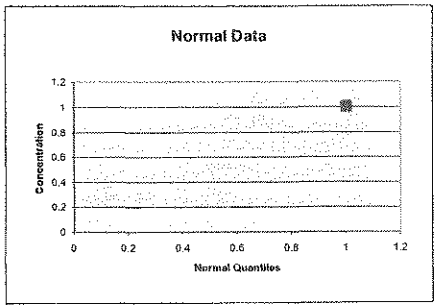
Estimates Assuming Lognormal Distribution	
MLE Mean	3.664809
MLE Standard Deviation	5.662953
MLE Median	1.991121
MLE Coefficient of Variation	1.545224
MVUE Estimate of Mean	3.594456
MVUE Estimate of Std. Dev.	5.160426
MVUE Estimate of SE	0.684229
MVUE Coefficient of Variation	1.435662

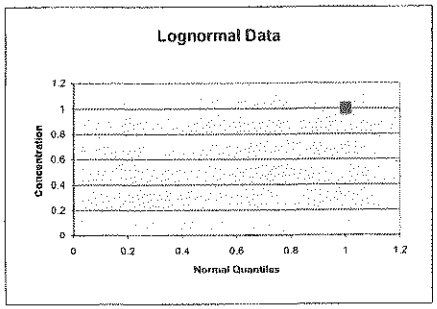
UCL Assuming Lognormal Distribution	
95% H-UCL	5.319623
95% Chebyshev (MVUE) UCL	6.576944
99% Chebyshev (MVUE) UCL	10.40247

FDEP Recommended UCL to Use:
4.896811

FDEP UCL Calculator Version 1.0

Goodness-of-fit test results





Shapiro-Francia Results (Adjust for Censoring)

SF for Normal Distribution	0
SF for LogNormal Distribution	0
Shapiro-Francia critical value for p<0.05	0.9669

Test stat > critical value indicates a reasonable fit

Shapiro-Wilk's Test Results for All Data (BDL replaced with 1/2 DL)

SW test statistic for Normal Distribution	0.534
SW test statistic for LogNormal Distribution	1.077
Shapiro-Wilk's critical value for p<0.05	0.945

Test stat > critical value indicates a reasonable fit

Based on the results of the Shapiro-Francia test
Distribution is best described as: Neither

Neither

FDEP UCL Calculator Version 1.0

10/19/06

Summary Statistics for result (2-4	
Number of Samples	45
Number of Censored Data	11
Minimum	0.07
Maximum	12.7
Mean	1.176822
Median	0.43
Standard Deviation	2.068981
Variance	4.280682
Coefficient of Variation	1.758108
Skewness	4.327823

95% UCL (Assuming Normal Data)	
Student's-t	1.695048

95% UCL (Adjusted for Skewness)	
Adjusted-CLT	1.896829
Modified-t	1.728212

95% Non-parametric UCL	
CLT	1.684182
Jackknife	NA
Standard Bootstrap	1.650528
Bootstrap-t	2.454268
Chebyshev (Mean, Std)	2.521249

Summary Statistics for ln(result (2-4))	
Minimum	-2.65926
Maximum	2.541602
Mean	-0.54698
Standard Deviation	1.103331
Variance	1.21734

Goodness-of-Fit Results	
Distribution Recommended	Neither
Distribution Used	Neither

Estimates Assuming Lognormal Distribution	
MLE Mean	1.063638
MLE Standard Deviation	1.640276
MLE Median	0.578697
MLE Coefficient of Variation	1.542138
MVUE Estimate of Mean	1.034815
MVUE Estimate of Std. Dev.	1.443608
MVUE Estimate of SE	0.23158
MVUE Coefficient of Variation	1.39504

UCL Assuming Lognormal Distribution	
95% H-UCL	1.604723
95% Chebyshev (MVUE) UCL	2.04425
99% Chebyshev (MVUE) UCL	3.339016

FDEP Recommended UCL to Use:
2.521249

APPENDIX B

Revised Well Completion Reports

MONITORING WELL COMPLETION REPORT

Project Name Countryside | Project Number 601-5982 | Date Installed 6/5/2006 | Well # MW-1R

Installation Supervised by J. Gravelle | Well Location Replacement for MW-1

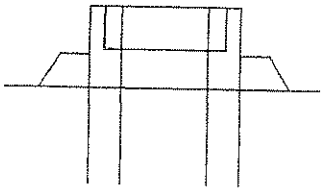
Ground Elevation NM | Water Level Measurement From Top of Casing

Well Development Data until clear | Method Peristaltic Pump | Volume Purged 2 gallons

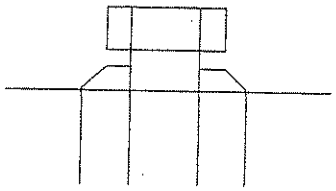
Drilling Method Hand Auger | Top of Casing Elevation (Measuring Point) 5.08

Driller HSA | Well Head Finish Type A ☐ B ☒ C ☐

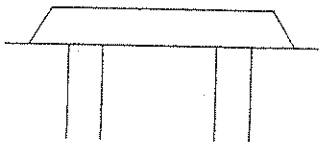
A: Concrete Pad with Locking Protective Cover

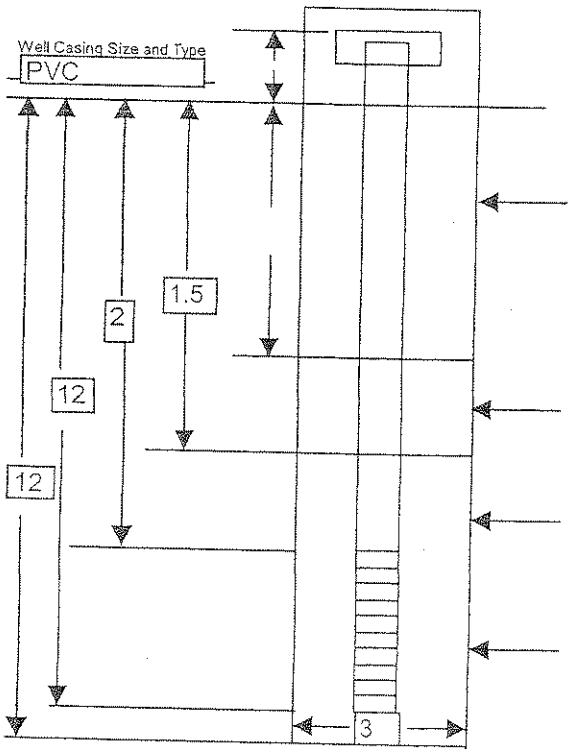


B: Concrete Pad with Locking Cap - No protective Cover



C: Flush - Steel Manhole with Locking Cap





Seal Type

Seal Type
30/65 Sand

Filter Pack Type
20/30 silica

Screen Type
0.010-slot

Depth (ft.)	SOIL PROFILE
1-6"	Grass with roots
6"-6'	grayish brown fine sand
6-12'	gray/brown silty fine sand

MONITORING WELL COMPLETION REPORT

Project Name Countryside Project Number 601-5982 Date Installed 6/13/2006 Well # TW-14

Installation Supervised by C. Krieter Well Location east of MW-2

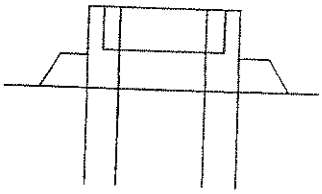
Ground Elevation NM Water Level Measurement From Top of Casing

Well Development Data until clear Method Peristaltic Pump Volume Purged 1.5 gallons

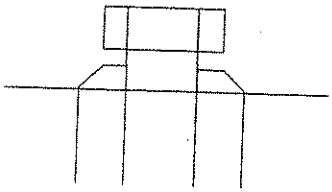
Drilling Method Hand Auger Top of Casing Elevation (Measuring Point) 8.34

Driller HSA Well Head Finish Type A ☐ B ☒ C ☐

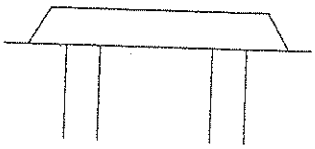
A: Concrete Pad with Locking Protective Cover

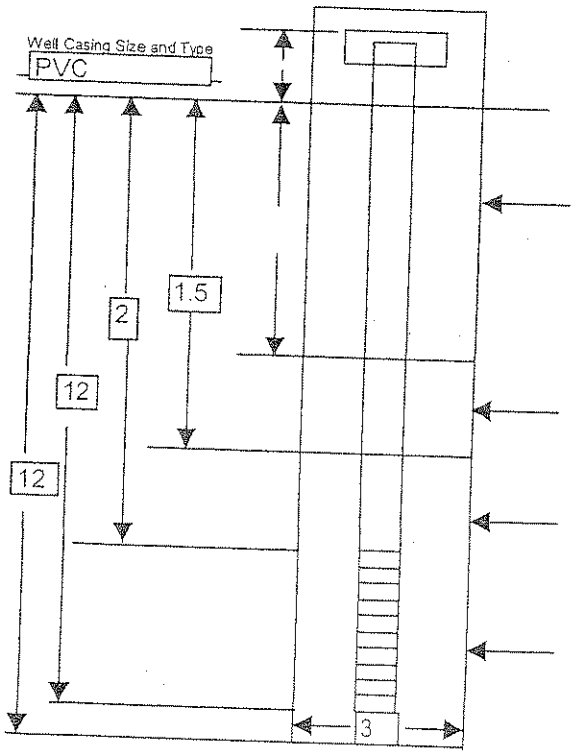


B: Concrete Pad with Locking Cap - No protective Cover



C: Flush - Steel Manhole with Locking Cap





Seal Type

Seal Type
30/65 Sand

Filter Pack Type
20/30 silica

Screen Type
0.010-slot

Depth (ft.)	SOIL PROFILE
1-6"	Grass with roots
6"-6'	brown fine sand
6-12'	gray/brown silty fine sand

MONITORING WELL COMPLETION REPORT

Project Name Countryside | Project Number 601-5982 | Date Installed 6/13/2006 | Well # TW-15

Installation Supervised by C. Krieter | Well Location southeast of MW-2

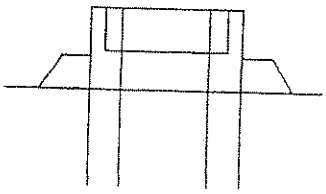
Ground Elevation NM | Water Level Measurement From Top of Casing

Well Development Data until clear | Method Peristaltic Pump | Volume Purged 1.7 gallons

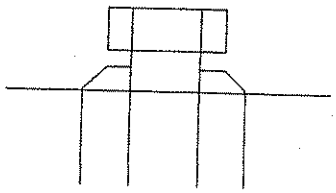
Drilling Method Hand Auger | Top of Casing Elevation (Measuring Point) 5.56

Driller HSA | Well Head Finish Type A ☐ B ☒ C ☐

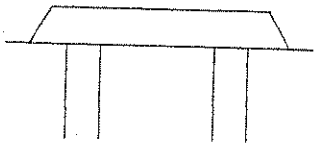
A: Concrete Pad with Locking Protective Cover

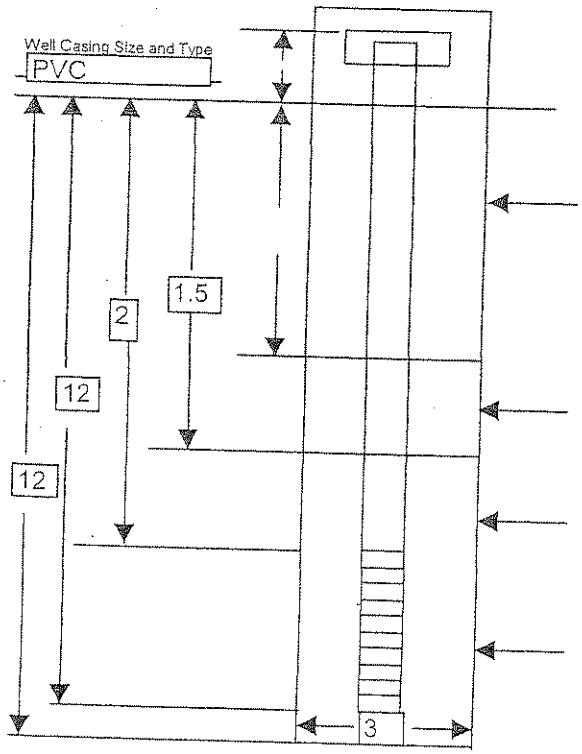


B: Concrete Pad with Locking Cap - No protective Cover



C: Flush - Steel Manhole with Locking Cap





Depth (ft.)	SOIL PROFILE
1-6"	Grass with roots
6"-8'	brown fine sand
8-12'	grayish brown silty fine sand

MONITORING WELL COMPLETION REPORT

Project Name Countryside | Project Number 601-5982 | Date Installed 6/13/2006 | Well # TW-16

Installation Supervised by C. Krieter | Well Location southeast of MW-1

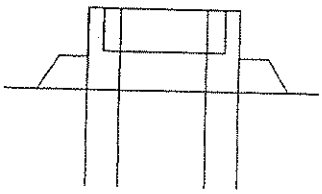
Ground Elevation NM | Water Level Measurement From Top of Casing 7.6

Well Development Data until clear | Method Peristaltic Pump | Volume Purged 2 gallons

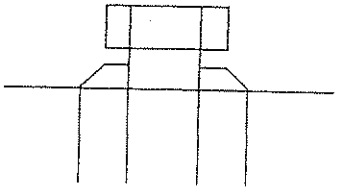
Drilling Method Hand Auger | Top of Casing Elevation (Measuring Point) _____

Driller HSA | Well Head Finish Type A ☐ B ☒ C ☐

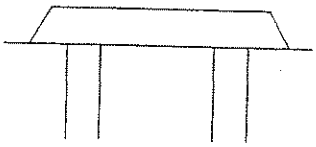
A: Concrete Pad with Locking Protective Cover

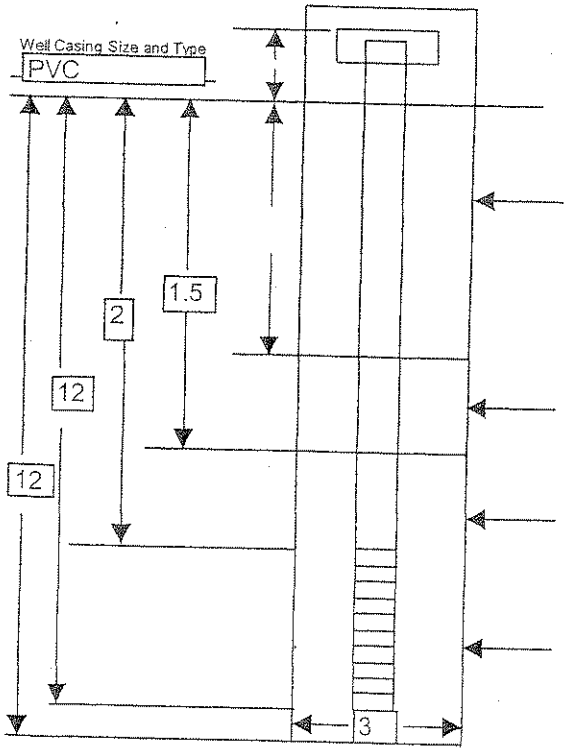


B: Concrete Pad with Locking Cap - No protective Cover



C: Flush - Steel Manhole with Locking Cap





Seal Type

Seal Type
30/65 Sand

Filter Pack Type
20/30 silica

Screen Type
0.010-slot

Depth (ft.)	SOIL PROFILE
1-3"	Grass with roots
3"-4'	brown fine sand
4-8'	grayish brown silty fine sand
8-12'	brown fine sand